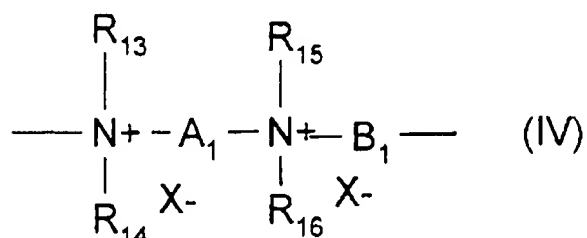


b) at least one cationic conditioner chosen from cationic silicones, quaternary ammonium salt surfactants, cyclopolymers of alkyldiallylamine, cyclopolymers of dialkyldiallylammonium, and polyquaternary ammonium polymers chosen from:  
~~—————(1) diquaternary ammonium polymers comprising repeating units of~~  
formula (IV):



wherein:

- R<sub>13</sub>, R<sub>14</sub>, R<sub>15</sub> and R<sub>16</sub>, which may be identical or different, are each chosen from aliphatic groups comprising from 1 to 20 carbon atoms, alicyclic groups comprising from 1 to 20 carbon atoms, arylaliphatic groups comprising from 1 to 20 carbon atoms, lower hydroxyalkylaliphatic groups, and, additionally,

at least two of said R<sub>13</sub>, R<sub>14</sub>, R<sub>15</sub> and R<sub>16</sub>, with the nitrogen atoms to which they are attached, form at least one heterocycle optionally comprising an additional heteroatom other than nitrogen, and, additionally,

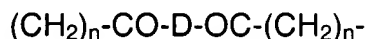
R<sub>13</sub>, R<sub>14</sub>, R<sub>15</sub> and R<sub>16</sub>, which may be identical or different, are each chosen from linear and branched C<sub>1</sub>-C<sub>6</sub> alkyl groups substituted with at least one group chosen from nitrile groups, ester groups, acyl groups, amide groups and groups chosen from groups of formulae -CO-O-R<sub>17</sub>-D and -CO-NH-R<sub>17</sub>-D wherein R<sub>17</sub> is chosen from alkylene groups and D is chosen from quaternary ammonium groups;

- A<sub>1</sub> and B<sub>1</sub>, which may be identical or different, are each chosen from polymethylene groups comprising from 2 to 20 carbon atoms, chosen from linear and branched, saturated and unsaturated polymethylene groups wherein said polymethylene groups may optionally comprise, optionally linked to and optionally intercalated in the main chain, at least one entity chosen from aromatic rings, oxygen atoms, sulfur atoms, sulfoxide groups, sulfone groups, disulfide groups, amino groups, alkylamino groups, hydroxyl groups, quaternary ammonium groups, ureido groups, amide groups and ester groups;

- X<sup>-</sup> is an anion chosen from anions derived from inorganic acids and anions derived from organic acids; and

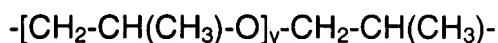
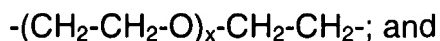
- A<sub>1</sub>, R<sub>13</sub> and R<sub>15</sub> may optionally form, together with the two nitrogen cations to which they are attached, at least one piperazine ring;

with the proviso that if A<sub>1</sub> is chosen from linear and branched, saturated and unsaturated alkylene groups and linear and branched, saturated and unsaturated hydroxyalkylene groups, B<sub>1</sub> may also be chosen from groups of formula:



wherein D is chosen from:

a) glycol residues of formula: -O-Z-O-, wherein Z is chosen from linear and branched hydrocarbon groups and groups chosen from groups of formulae:



wherein x and y, which may be identical or different, are each chosen from integers ranging from 1 to 4 (in which case x and y represent a defined and unique

degree of polymerization) and any number ranging from 1 to 4 (in which case x and y represent an average degree of polymerization);

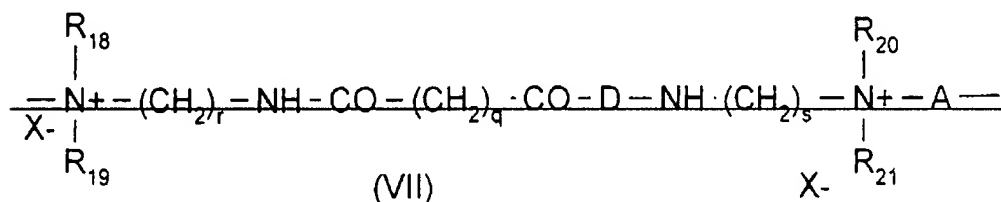
b) bis-secondary diamine residues;

c) bis-primary diamine residues chosen from residues of formula:

-NH-Y-NH-, wherein Y is chosen from linear and branched hydrocarbon groups and residues of formula -CH<sub>2</sub>-CH<sub>2</sub>-S-S-CH<sub>2</sub>-CH<sub>2</sub>-; and

d) ureylene groups of formula: -NH-CO-NH-; and

~~—————(2)—————polyquaternary ammonium polymers comprising at least one unit of formula (VII):~~



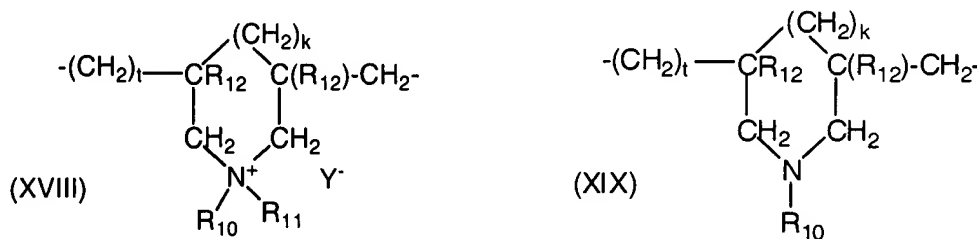
wherein:

~~—————R<sub>18</sub>, R<sub>19</sub>, R<sub>20</sub> and R<sub>21</sub>, which may be identical or different, are each chosen from a hydrogen atom, a methyl group, an ethyl group, a propyl group, a β-hydroxyethyl group, a β-hydroxypropyl group, and a -CH<sub>2</sub>CH<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>p</sub>OH group, wherein p is an integer ranging from 0 to 6;~~

~~—————with the proviso that R<sub>18</sub>, R<sub>19</sub>, R<sub>20</sub> and R<sub>21</sub> are all not simultaneously hydrogen atoms;~~

~~— r and s, which may be identical or different, are each chosen from integers ranging from 1 to 6;~~  
~~— q is an integer ranging from 1 to 34;~~  
~~— X<sup>-</sup> is chosen from anions of inorganic and organic acids;~~  
~~— D is chosen from direct bonds and (CH<sub>2</sub>)<sub>t</sub>-CO groups wherein t is 4 or 7; and~~  
~~— A is chosen from dihalide groups and a group of formula CH<sub>2</sub>-CH<sub>2</sub>-O-CH<sub>2</sub>-CH<sub>2</sub>-~~

wherein the cyclopolymers of alkyldiallylamine and cyclopolymers of dialkyldiallylammonium are chosen from homopolymers and copolymers comprising at least one unit chosen from units of formulae (XVIII) and (XIX):



wherein:

- k and t, which may be identical or different, are each chosen from 0 and 1, with the proviso that the sum of k + t is equal to 1;
- R<sub>12</sub>, which may be identical or different, are chosen from hydrogen and methyl groups;
- R<sub>10</sub> and R<sub>11</sub>, which may be identical or different, are each chosen from alkyl groups comprising 1 to 22 carbon atoms, hydroxyalkyl groups wherein the alkyl group optionally comprises from 1 to 5 carbon atoms, lower C<sub>1</sub>-C<sub>4</sub> amidoalkyl groups, and, additionally,

R<sub>10</sub> and R<sub>11</sub>, together with the nitrogen atom to which they are commonly attached, form at least one heterocyclic group; and

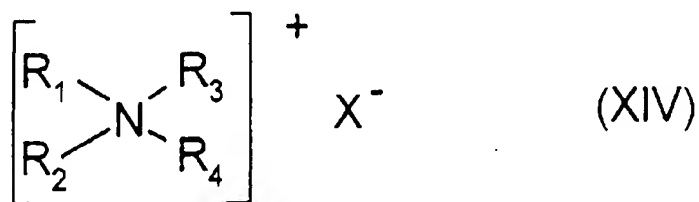
- Y<sup>-</sup> is an anion.

2. (Canceled).  
3. (Previously presented) A composition according to claim 1, wherein R and R' are hydrogen and n is equal to 2.

4-17. (Canceled).

18. (Original) A composition according to claim 1, wherein said quaternary ammonium salt surfactants are chosen from:

a) quaternary ammonium salts of formula (XIV):



wherein:

- X<sup>-</sup> is an anion chosen from halides, (C<sub>2</sub>-C<sub>6</sub>)alkyl sulfates, phosphates, alkyl sulfonates, alkylaryl sulfonates, and anions derived from organic acids,

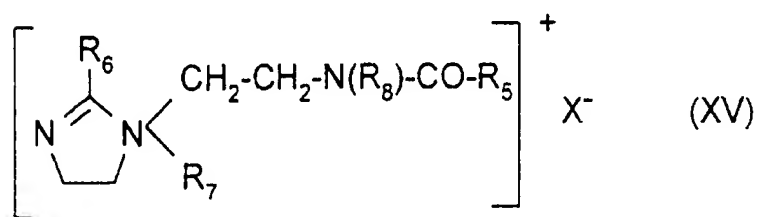
i) - the radicals R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub>, which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 4 carbon atoms, optionally comprising hetero atoms and aromatic radicals, and

- R<sub>4</sub> is chosen from linear and branched alkyl radicals comprising from 16 to 30 carbon atoms;

ii) - the radicals  $R_1$  and  $R_2$ , which may be identical or different, are independently chosen from linear and branched aliphatic radicals comprising from 1 to 4 carbon atoms, optionally comprising hetero atoms, and aromatic radicals, and

-  $R_3$  and  $R_4$ , which may be identical or different, are independently chosen from linear and branched alkyl radicals comprising from 12 to 30 carbon atoms, wherein said radicals further comprise at least one function chosen from ester functions and amide functions;

b) quaternary ammonium salts of imidazolinium of formula (XV):



wherein:

-  $R_5$  is chosen from alkenyl and alkyl radicals comprising from 8 to 30 carbon atoms,

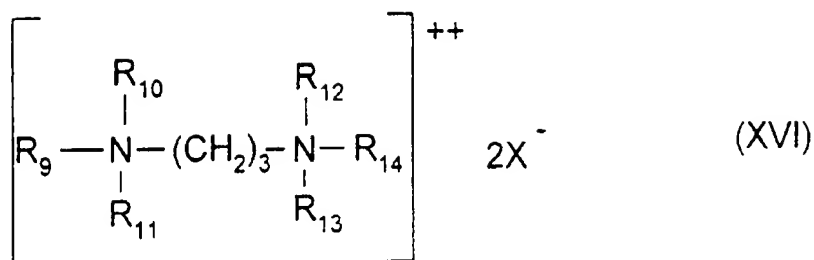
-  $R_6$  is chosen from a hydrogen atom,  $C_1$ - $C_4$  alkyl radicals, alkenyl radicals comprising from 8 to 30 carbon atoms, and alkyl radicals comprising from 8 to 30 carbon atoms,

-  $R_7$  is chosen from  $C_1$ - $C_4$  alkyl radicals,

-  $R_8$  is chosen from a hydrogen atom and  $C_1$ - $C_4$  alkyl radicals, and

-  $X^-$  is an anion chosen from halides, phosphates, acetates, lactates, alkyl sulfates, alkyl sulfonates, and alkylaryl sulfonates;

c) diquaternary ammonium salts of formula (XVI):

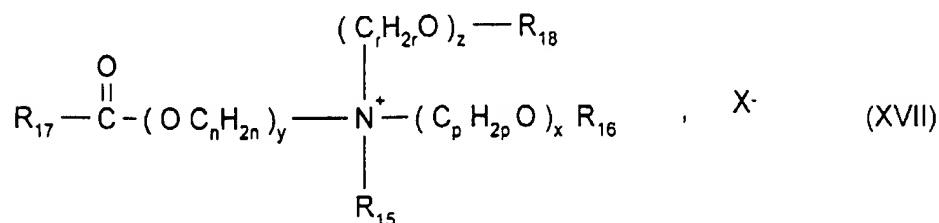


wherein:

- R<sub>9</sub> is chosen from aliphatic radicals comprising from 16 to 30 carbon atoms,
- R<sub>10</sub>, R<sub>11</sub>, R<sub>12</sub>, R<sub>13</sub> and R<sub>14</sub>, which may be identical or different, are independently chosen from a hydrogen atom and alkyl radicals comprising from 1 to 4 carbon atoms, and

- X<sup>-</sup> is an anion chosen from halides, acetates, phosphates, nitrates and methyl sulfates;

d) quaternary ammonium salts of formula (XVII) comprising at least one ester function:

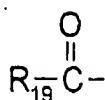


wherein:

- R<sub>15</sub> is chosen from C<sub>1</sub>-C<sub>6</sub> alkyl radicals, C<sub>1</sub>-C<sub>6</sub> hydroxyalkyl radicals, and C<sub>1</sub>-C<sub>6</sub> dihydroxyalkyl radicals;

- R<sub>16</sub> is chosen from:

(i) acyl groups of the following formula:



wherein R<sub>19</sub> is defined below,

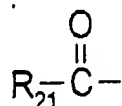
(ii) linear and branched, saturated and unsaturated, C<sub>1</sub>-C<sub>22</sub> hydrocarbon-based radicals,

and

(iii) a hydrogen atom;

- R<sub>18</sub> is chosen from:

(i) acyl groups of the following formula:



wherein R<sub>21</sub> is defined below,

(ii) linear and branched, saturated and unsaturated, C<sub>1</sub>-C<sub>6</sub> hydrocarbon-based radicals, and

(iii) a hydrogen atom;

- R<sub>17</sub>, R<sub>19</sub> and R<sub>21</sub>, which may be identical or different, are independently chosen from linear and branched, saturated and unsaturated, C<sub>7</sub>-C<sub>21</sub> hydrocarbon-based radicals;

- n, p and r, which may be identical or different, are independently chosen from integers ranging from 2 to 6;



- y is an integer ranging from 1 to 10;
  - x and z, which may be identical or different, are independently chosen from integers ranging from 0 to 10; and
  - X<sup>-</sup> is chosen from simple and complex, organic and inorganic anions;
- provided that the sum  $x + y + z$  is from 1 to 15, and that when x is 0, then R<sub>16</sub> is chosen from linear and branched, saturated and unsaturated, C<sub>1</sub>-C<sub>22</sub> hydrocarbon-based radicals, and that when z is 0, then R<sub>18</sub> is chosen from linear and branched, saturated and unsaturated, C<sub>1</sub>-C<sub>6</sub> hydrocarbon-based radicals.

19-24. (Canceled).

25. (Original) A composition according to claim 18, wherein X<sup>-</sup> of said quaternary ammonium salts of formula (XIV) is an anion chosen from chloride, bromide, iodide, methyl sulfate, acetate, and lactate.

26. (Canceled).

27. (Canceled).

28. (Original) A composition according to claim 18, wherein said aliphatic radicals of said quaternary ammonium salts of formula (XIV) are chosen from alkyl, alkoxy, alkylamide, polyoxy(C<sub>2</sub>-C<sub>6</sub>)alkylene, and hydroxyalkyl radicals comprising from 1 to 4 carbon atoms.

29-37. (Canceled).

38. (Original) A composition according to claim 18, wherein said quaternary ammonium salts of formula (XIV) are chosen from (a) compounds comprising at least two fatty aliphatic radicals comprising from 8 to 30 carbon atoms, (b) compounds

comprising at least one fatty aliphatic radical comprising from 17 to 30 carbon atoms, and (c) compounds comprising at least one aromatic radical.

39. (Original) A composition according to claim 18, wherein said at least one cationic conditioner is chosen from behenyltrimethylammonium salts, stearamidopropyldimethyl(myristyl acetate)ammonium salts, Quaternium-27 and Quaternium-83.

40-42. (Canceled).

43. (Original) A composition according to claim 1, wherein said at least one amphoteric starch is present in an amount ranging from 0.01% to 10% by weight, relative to the total weight of the composition.

44. (Original) A composition according to claim 43, wherein said at least one amphoteric starch is present in an amount ranging from 0.1% to 5% by weight, relative to the total weight of the composition.

45. (Original) A composition according to claim 1, wherein said at least one cationic conditioner is present in an amount ranging from 0.001% to 10% by weight, relative to the total weight of the composition.

46. (Original) A composition according to claim 45, wherein said at least one cationic conditioner is present in an amount ranging from 0.01% to 5% by weight, relative to the total weight of the composition.

47. (Original) A composition according to claim 1 further comprising at least one surfactant chosen from anionic, nonionic and amphoteric surfactants.

48. (Original) A composition according to claim 47, wherein said at least one surfactant is present in an amount ranging from 0.1% to 60% by weight, relative to the total weight of the composition.

49. (Original) A composition according to claim 48, wherein said at least one surfactant is present in an amount ranging from 3% to 40% by weight, relative to the total weight of the composition.

50. (Original) A composition according to claim 49, wherein said at least one surfactant is present in an amount ranging from 5% to 30% by weight, relative to the total weight of the composition.

51. (Original) A composition according to claim 47, wherein said at least one surfactant is chosen from at least two different surfactants.

52. (Previously presented) A composition according to claim 51, wherein said at least two different surfactants are chosen from (a) at least two anionic surfactants, (b) at least one anionic surfactant and at least one amphoteric surfactant, and (c) at least one anionic surfactant and at least one nonionic surfactant.

53. (Original) A composition according to claim 1 further comprising at least one additive chosen from thickeners, fragrances, nacreous agents, preserving agents, silicone sunscreens, non-silicone sunscreens, vitamins, provitamins, cationic polymers, amphoteric polymers, anionic polymers, nonionic polymers, proteins, protein hydrolysates, 18-methyleicosanoic acid, hydroxy acids, panthenol, volatile silicones, non-volatile silicones, cyclic silicones, linear silicones, crosslinked silicones, modified silicones, and unmodified silicones.

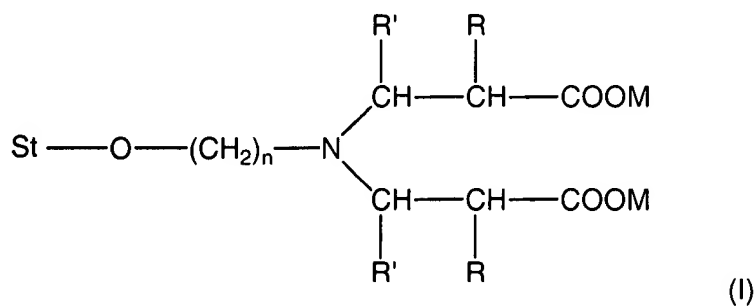
54. (Original) A composition according to claim 53, wherein said at least one additive is present in an amount ranging from greater than 0% to 20% by weight, relative to the total weight of the composition.

55. (Original) A composition according to claim 1, wherein said composition has a pH ranging from 2 to 10.

56. (Original) A composition according to claim 55, wherein said composition has a pH ranging from 3 to 6.5.

57. (Currently amended) A shampoo, a rinse-out conditioner, a leave-in conditioner, a hair permanent-waving composition, a hair straightening composition, a hair dyeing composition, a hair bleaching composition, a rinse-out composition to be applied between steps of a permanent-waving operation, a rinse-out composition to be applied between steps of a hair-straightening operation, comprising, in a cosmetically acceptable medium:

a) at least one amphoteric starch chosen from the compounds of formula (I):



wherein:

St-O is a starch moiety,

R, which may be identical or different, are each chosen from a hydrogen atom and a methyl group,

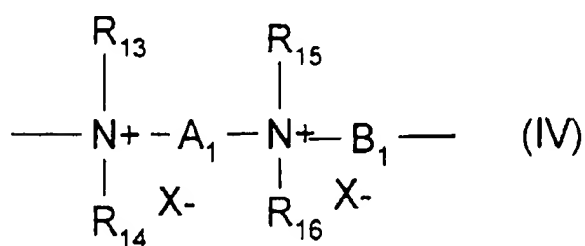
R', which may be identical or different, are each chosen from a hydrogen atom, and a methyl group,

n is chosen from integers ranging from 2 to 3,

M, which may be identical or different, are each chosen from a hydrogen atom, an alkali metal, an alkaline-earth metal, NH<sub>4</sub>, quaternary ammonium compounds, and organic amines; and

b) at least one cationic conditioner chosen from cationic silicones, quaternary ammonium salt surfactants, cyclopolymers of alkyldiallylamine, cyclopolymers of dialkyldiallylammonium, and polyquaternary ammonium polymers chosen from:

—————(1) diquaternary ammonium polymers comprising repeating units of formula (IV):



wherein:

- R<sub>13</sub>, R<sub>14</sub>, R<sub>15</sub> and R<sub>16</sub>, which may be identical or different, are each chosen from aliphatic groups comprising from 1 to 20 carbon atoms, alicyclic groups comprising from 1 to 20 carbon atoms, arylaliphatic groups comprising from 1 to 20 carbon atoms, lower hydroxyalkylaliphatic groups, and, additionally,

at least two of said  $R_{13}$ ,  $R_{14}$ ,  $R_{15}$  and  $R_{16}$ , with the nitrogen atoms to which they are attached, form at least one heterocycle optionally comprising an additional heteroatom other than nitrogen, and, additionally,

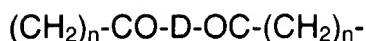
$R_{13}$ ,  $R_{14}$ ,  $R_{15}$  and  $R_{16}$ , which may be identical or different, are each chosen from linear and branched  $C_1$ - $C_6$  alkyl groups substituted with at least one group chosen from nitrile groups, ester groups, acyl groups, amide groups and groups chosen from groups of formulae  $-CO-O-R_{17}-D$  and  $-CO-NH-R_{17}-D$  wherein  $R_{17}$  is chosen from alkylene groups and  $D$  is chosen from quaternary ammonium groups;

-  $A_1$  and  $B_1$ , which may be identical or different, are each chosen from polymethylene groups comprising from 2 to 20 carbon atoms, chosen from linear and branched, saturated and unsaturated polymethylene groups wherein said polymethylene groups may optionally comprise, optionally linked to and optionally intercalated in the main chain, at least one entity chosen from aromatic rings, oxygen atoms, sulfur atoms, sulfoxide groups, sulfone groups, disulfide groups, amino groups, alkylamino groups, hydroxyl groups, quaternary ammonium groups, ureido groups, amide groups and ester groups;

-  $X^-$  is an anion chosen from anions derived from inorganic acids and anions derived from organic acids; and

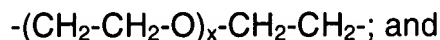
-  $A_1$ ,  $R_{13}$  and  $R_{15}$  may optionally form, together with the two nitrogen cations to which they are attached, at least one piperazine ring;

with the proviso that if  $A_1$  is chosen from linear and branched, saturated and unsaturated alkylene groups and linear and branched, saturated and unsaturated hydroxyalkylene groups,  $B_1$  may also be chosen from groups of formula:



wherein D is chosen from:

a) glycol residues of formula:  $-\text{O-Z-O}-$ , wherein Z is chosen from linear and branched hydrocarbon groups and groups chosen from groups of formulae:



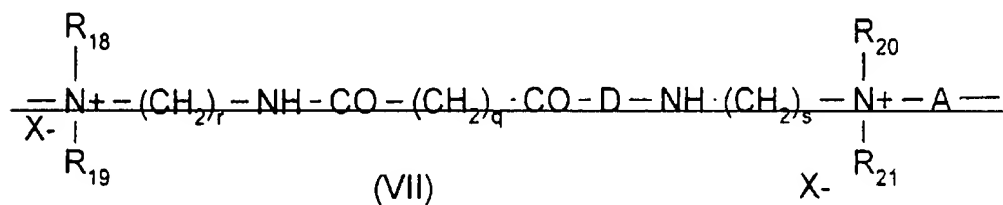
wherein x and y, which may be identical or different, are each chosen from integers ranging from 1 to 4 (in which case x and y represent a defined and unique degree of polymerization) and any number ranging from 1 to 4 (in which case x and y represent an average degree of polymerization);

b) bis-secondary diamine residues;

c) bis-primary diamine residues chosen from residues of formula:  $-\text{NH-Y-NH}-$ , wherein Y is chosen from linear and branched hydrocarbon groups and residues of formula  $-\text{CH}_2\text{-CH}_2\text{-S-S-CH}_2\text{-CH}_2\text{-}$ ; and

d) ureylene groups of formula:  $-\text{NH-CO-NH}-$ ; and

~~—————(2)—————polyquaternary ammonium polymers comprising at least one unit of formula (VII):~~



wherein:

~~—R<sub>18</sub>, R<sub>19</sub>, R<sub>20</sub> and R<sub>21</sub>, which may be identical or different, are each chosen from a hydrogen atom, a methyl group, an ethyl group, a propyl group, a β-hydroxyethyl group, a β-hydroxypropyl group, and a —CH<sub>2</sub>CH<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>p</sub>OH group, wherein p is an integer ranging from 0 to 6;~~

~~with the proviso that R<sub>18</sub>, R<sub>19</sub>, R<sub>20</sub> and R<sub>24</sub> are all not simultaneously hydrogen atoms;~~

~~\_\_\_\_\_ r and s, which may be identical or different, are each chosen from integers ranging from 1 to 6;~~

~~\_\_\_\_\_ g is an integer ranging from 1 to 34;~~

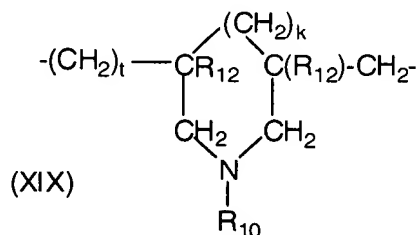
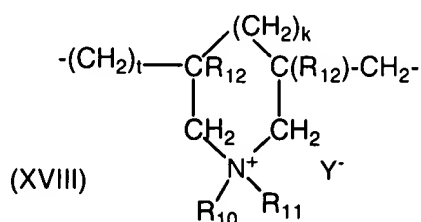
~~X<sup>-</sup> is chosen from anions of inorganic and organic acids,~~

~~D is chosen from direct bonds and  $(\text{CH}_2)_t\text{CO}$  groups wherein t is 4 or 7; and~~

~~\_\_\_\_\_ A is chosen from dihalide groups and a group of formula  $\text{CH}_2\text{CH}_2\text{O}$~~

~~$\text{CH}_2\text{CH}_2\text{-}$~~

wherein the cyclopolymers of alkylldiallylamine and cyclopolymers of dialkylldiallylammonium are chosen from homopolymers and copolymers comprising at least one unit chosen from units of formulae (XVIII) and (XIX):



wherein:



- k and t, which may be identical or different, are each chosen from 0 and 1, with the proviso that the sum of k + t is equal to 1;

- R<sub>12</sub>, which may be identical or different, are chosen from hydrogen and methyl groups;

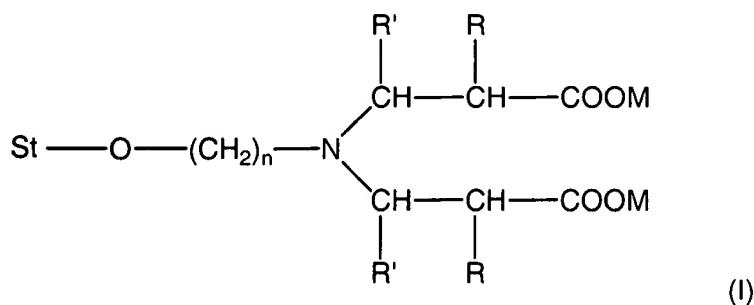
- R<sub>10</sub> and R<sub>11</sub>, which may be identical or different, are each chosen from alkyl groups comprising 1 to 22 carbon atoms, hydroxyalkyl groups wherein the alkyl group optionally comprises from 1 to 5 carbon atoms, lower C<sub>1</sub>-C<sub>4</sub> amidoalkyl groups, and, additionally,

R<sub>10</sub> and R<sub>11</sub>, together with the nitrogen atom to which they are commonly attached, form at least one heterocyclic group; and

- Y<sup>-</sup> is an anion.

58. (Currently amended) A shower gel, a bubble bath or a make-up-removing product comprising, in a cosmetically acceptable medium:

a) at least one amphoteric starch chosen from the compounds of formula (I):



wherein:

St-O is a starch moiety,

R, which may be identical or different, are each chosen from a hydrogen atom and a methyl group,

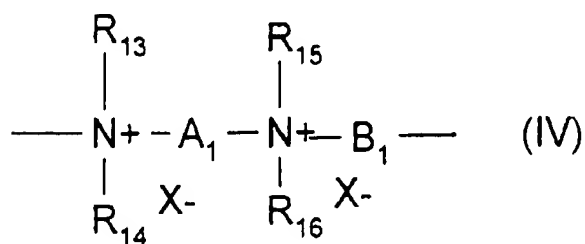
R', which may be identical or different, are each chosen from a hydrogen atom, and a methyl group,

n is chosen from integers ranging from 2 to 3,

M, which may be identical or different, are each chosen from a hydrogen atom, an alkali metal, an alkaline-earth metal, NH<sub>4</sub>, quaternary ammonium compounds, and organic amines; and

b) at least one cationic conditioner chosen from cationic silicones, quaternary ammonium salt surfactants, cyclopolymers of alkyldiallylamine, cyclopolymers of dialkyldiallylammonium, and polyquaternary ammonium polymers chosen from:

—————(1) diquaternary ammonium polymers comprising repeating units of formula (IV):



wherein:

- R<sub>13</sub>, R<sub>14</sub>, R<sub>15</sub> and R<sub>16</sub>, which may be identical or different, are each chosen from aliphatic groups comprising from 1 to 20 carbon atoms, alicyclic groups comprising from 1 to 20 carbon atoms, arylaliphatic groups comprising from 1 to 20 carbon atoms, lower hydroxyalkylaliphatic groups, and, additionally,

at least two of said  $R_{13}$ ,  $R_{14}$ ,  $R_{15}$  and  $R_{16}$ , with the nitrogen atoms to which they are attached, form at least one heterocycle optionally comprising an additional heteroatom other than nitrogen, and, additionally,

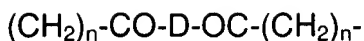
$R_{13}$ ,  $R_{14}$ ,  $R_{15}$  and  $R_{16}$ , which may be identical or different, are each chosen from linear and branched  $C_1$ - $C_6$  alkyl groups substituted with at least one group chosen from nitrile groups, ester groups, acyl groups, amide groups and groups chosen from groups of formulae  $-CO-O-R_{17}-D$  and  $-CO-NH-R_{17}-D$  wherein  $R_{17}$  is chosen from alkylene groups and  $D$  is chosen from quaternary ammonium groups;

-  $A_1$  and  $B_1$ , which may be identical or different, are each chosen from polymethylene groups comprising from 2 to 20 carbon atoms, chosen from linear and branched, saturated and unsaturated polymethylene groups wherein said polymethylene groups may optionally comprise, optionally linked to and optionally intercalated in the main chain, at least one entity chosen from aromatic rings, oxygen atoms, sulfur atoms, sulfoxide groups, sulfone groups, disulfide groups, amino groups, alkylamino groups, hydroxyl groups, quaternary ammonium groups, ureido groups, amide groups and ester groups;

-  $X^-$  is an anion chosen from anions derived from inorganic acids and anions derived from organic acids; and

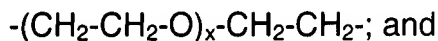
-  $A_1$ ,  $R_{13}$  and  $R_{15}$  may optionally form, together with the two nitrogen cations to which they are attached, at least one piperazine ring;

with the proviso that if  $A_1$  is chosen from linear and branched, saturated and unsaturated alkylene groups and linear and branched, saturated and unsaturated hydroxyalkylene groups,  $B_1$  may also be chosen from groups of formula:



wherein D is chosen from:

a) glycol residues of formula:  $\text{-O-Z-O-}$ , wherein Z is chosen from linear and branched hydrocarbon groups and groups chosen from groups of formulae:



wherein x and y, which may be identical or different, are each chosen from integers ranging from 1 to 4 (in which case x and y represent a defined and unique degree of polymerization) and any number ranging from 1 to 4 (in which case x and y represent an average degree of polymerization);

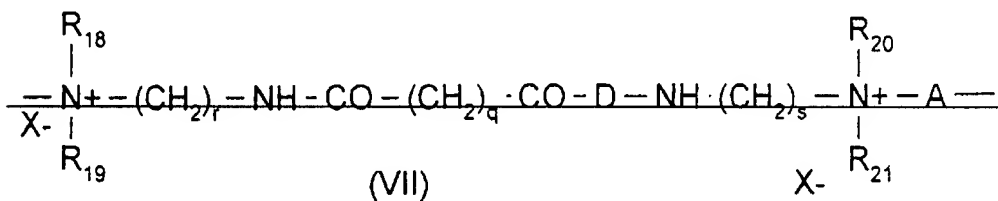
b) bis-secondary diamine residues;

c) bis-primary diamine residues chosen from residues of formula:

$\text{-NH-Y-NH-}$ , wherein Y is chosen from linear and branched hydrocarbon groups and residues of formula  $\text{-CH}_2\text{-CH}_2\text{-S-S-CH}_2\text{-CH}_2\text{-}$ ; and

d) ureylene groups of formula:  $\text{-NH-CO-NH-}$ ; and

~~(2) — polyquaternary ammonium polymers comprising at least one unit of formula (VII):~~



wherein:

~~—  $R_{18}$ ,  $R_{19}$ ,  $R_{20}$  and  $R_{21}$ , which may be identical or different, are each chosen from a hydrogen atom, a methyl group, an ethyl group, a propyl group, a  $\beta$ -hydroxyethyl group, a  $\beta$ -hydroxypropyl group, and a  $\text{CH}_2\text{CH}_2(\text{OCH}_2\text{CH}_2)_p\text{OH}$  group, wherein p is an integer ranging from 0 to 6;~~

~~— with the proviso that  $R_{18}$ ,  $R_{19}$ ,  $R_{20}$  and  $R_{21}$  are all not simultaneously hydrogen atoms;~~

~~— r and s, which may be identical or different, are each chosen from integers ranging from 1 to 6;~~

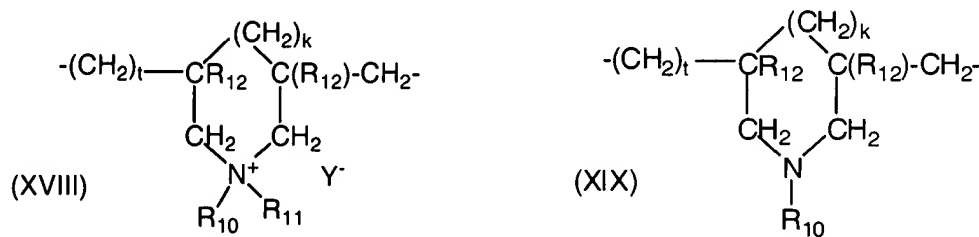
~~— q is an integer ranging from 1 to 34;~~

~~—  $X^-$  is chosen from anions of inorganic and organic acids;~~

~~— D is chosen from direct bonds and  $(\text{CH}_2)_t\text{CO}$  groups wherein t is 4 or 7; and~~

~~— A is chosen from dihalide groups and a group of formula  $\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2$ -~~

wherein the cyclopolymers of alkyldiallylamine and cyclopolymers of dialkyldiallylammonium are chosen from homopolymers and copolymers comprising at least one unit chosen from units of formulae (XVIII) and (XIX):



wherein:

- k and t, which may be identical or different, are each chosen from 0 and 1, with the proviso that the sum of k + t is equal to 1;

- R<sub>12</sub>, which may be identical or different, are chosen from hydrogen and methyl groups;

- R<sub>10</sub> and R<sub>11</sub>, which may be identical or different, are each chosen from alkyl groups comprising 1 to 22 carbon atoms, hydroxyalkyl groups wherein the alkyl group optionally comprises from 1 to 5 carbon atoms, lower C<sub>1</sub>-C<sub>4</sub> amidoalkyl groups, and, additionally,

R<sub>10</sub> and R<sub>11</sub>, together with the nitrogen atom to which they are commonly attached, form at least one heterocyclic group; and

- Y<sup>-</sup> is an anion.

59-70. (Canceled)

71. (Currently amended) The shampoo, rinse-out conditioner, leave-in conditioner, hair permanent-waving composition, hair straightening composition, hair dyeing composition, hair bleaching composition, rinse-out composition to be applied between steps of a permanent-waving operation, or rinse-out composition to be applied between steps of a hair-straightening operation according to claim ~~[[70]]~~ 57, wherein R<sub>10</sub> and R<sub>11</sub> ~~are each,~~ together with the nitrogen atom to which they are commonly attached, form at least one heterocyclic group chosen from piperidyl groups and morpholinyl groups and Y<sup>-</sup> is chosen from bromide, chloride, acetate, borate, citrate, tartrate, bisulfate, bisulfite, sulfate, and phosphate.